

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

IN THE MATTER OF:

**Stepan Company
22500 Stepan Drive
Elwood, Illinois 60421**

ATTENTION:

**Chris Backos
Environmental Manager
cbackos@stepan.com**

Request to Provide Information Pursuant to the Clean Air Act

The U.S. Environmental Protection Agency is requiring Stepan Company (Stepan or you) to submit certain information about the facility at 22500 Stepan Drive, Elwood, Illinois.

Appendix A provides the instructions needed to answer this information request, including instructions for electronic submissions. Appendix B specifies the information that you must submit. You must send this information to us within 60 calendar days after you receive this request.

We are issuing this information request under Section 114(a) of the Clean Air Act (the CAA), 42 U.S.C. § 7414(a). Section 114(a) authorizes the Administrator of EPA to require the submission of information. The Administrator has delegated this authority to the Director of the Enforcement and Compliance Assurance Division, Region 5.

Stepan owns and operates an emission source at the Elwood, Illinois facility. We are requesting this information to determine whether your emission source is complying with the Illinois State Implementation Plan and the national emission standards for hazardous air pollutants (NESHAP) for miscellaneous organic chemical (MON) manufacturing.

At this time, EPA Region 5 is not accepting any hard-copy document deliveries. If possible, we ask Stepan to upload all required information to the secured web-link shared with you at the time you received this request. If you did not receive a web-link, or if you are having technical difficulties, you must contact Victoria Nelson at nelson.victoria@epa.gov or 312-886-9481 to make arrangements to submit your response.

Stepan must submit all required information under an authorized signature with the following certification:

I certify under penalty of law that I have examined and am familiar with the information in the enclosed documents, including all attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are, to the best of my knowledge and belief, true and complete. I am aware that there are significant penalties for knowingly submitting false statements and information, including the possibility of fines or imprisonment pursuant to Section 113(c)(2) of the Clean Air Act and 18 U.S.C. §§ 1001 and 1341.

As explained more fully in Appendix C, you may assert a claim of business confidentiality under 40 C.F.R. Part 2, Subpart B for any part of the information you submit to us. Information subject to a business confidentiality claim is available to the public only to the extent, and by means of the procedures, set forth at 40 C.F.R. Part 2, Subpart B. If you do not assert a business confidentiality claim when you submit the information, EPA may make this information available to the public without further notice.

This information request is not subject to the Paperwork Reduction Act, 44 U.S.C. § 3501 *et seq.*, because it seeks collection of information from specific individuals or entities as part of an administrative action or investigation.

We may use any information submitted in response to this request in an administrative, civil or criminal action.

Failure to comply fully with this information request may subject Stepan to an enforcement action under Section 113 of the CAA, 42 U.S.C. § 7413.

You should direct any questions about this information request to Victoria Nelson at 312-886-9481 or nelson.victoria@epa.gov.

Michael D. Harris
Division Director
Enforcement and Compliance Assurance
Division

Appendix A

When providing the information requested in Appendix B, use the following instructions and definitions.

Instructions

1. Provide a separate narrative response to each question and subpart of a question set forth in Appendix B.
2. Precede each answer with the number of the question to which it corresponds and, at the end of each answer, identify the person(s) who provided information used or considered in responding to that question, as well as each person consulted in the preparation of that response.
3. Indicate on each document produced, or in some other reasonable manner, the number of the question to which it corresponds.
4. When a response is provided in the form of a number, specify the units of measure of the number in a precise manner.
5. Where information or documents necessary for a response are neither in your possession nor available to you, indicate in your response why the information or documents are not available or in your possession, and identify any source that either possesses or is likely to possess the documents or information.
6. If information not known or not available to you as of the date of submission later becomes known or available to you, you must supplement your response. Moreover, should you find at any time after the submission of your response that any portion of the submitted information is false or incorrect, you must notify EPA as soon as possible.

Electronic Submissions

To aid in our electronic recordkeeping efforts, we request that you provide all documents responsive to this information request in an electronic format according to paragraphs 1 through 6, below. These submissions are in lieu of hard copy.

1. Provide all responsive documents in Portable Document Format (PDF) or similar format, unless otherwise requested in specific questions. If the PDFs are scanned images, perform at least Optical Character Recognition (OCR) for “image over text” to allow the document to be searchable. Submitters providing secured PDFs should also provide unsecured versions for EPA use in repurposing text.
2. When specific questions request data in electronic spreadsheet form, provide the data and corresponding information in editable Excel or Lotus format, and not in image format. If Excel or Lotus formats are not available, then the format should allow for data to be used in calculations by a standard spreadsheet program such as Excel or Lotus.

3. Provide submission to the secure web-link provided by EPA.
4. Provide a table of contents of all electronic documents submitted in response to our request so that each document can be accurately identified in relation to your response to a specific question. We recommend the use of electronic file folders organized by question number.
5. Please submit documents claimed as confidential business information (CBI) in separate file folders apart from the non-confidential information. This will facilitate appropriate records management and appropriate handling and protection of the CBI. Please follow the instructions in Appendix C for designating information as CBI.
6. Certify that the attached files have been scanned for viruses and indicate what program was used.

Definitions

All terms used in this information request have their ordinary meaning unless such terms are defined in the CAA, 42 U.S.C. §§ 7401 *et seq.*

1. “Facility” shall include those structures and emission units located at Stepan’s operations at or around 22500 Stepan Drive, in Elwood, Illinois.
2. The “2019 Title V Permit” shall mean the permit issued to the Facility on February 25, 2019, identified as Permit No. 96030061.
3. The terms “document” and “documents” shall mean any object that records, stores, or presents information, and includes writings, memoranda, records, or information of any kind, formal or informal, whether wholly or partially handwritten or typed, whether in computer format, memory, or storage device, or in hardcopy, including any form or format of these. If in computer format or memory, each such document shall be provided in translation to a form useable and readable by EPA, with all necessary documentation and support. All documents in hard copy should also include attachments to or enclosures with any documents.
4. The term "capital appropriation request" shall mean any document used by plant personnel in seeking management approval for planned expenditures at the Facility. These documents are also known as authorizations for expenditure, capital requests or other, similar names.
5. The term “relate to” (or any form thereof) shall mean constituting, reflecting, representing, supporting, contradicting, referring to, stating, describing, recording, noting, embodying, containing, mentioning, studying, analyzing, discussing, evaluating or relevant to.

Appendix B

Information You Are Required to Submit to EPA

Stepan must submit the following information pursuant to Section 114(a) of the CAA,

42 U.S.C. § 7414(a):

1. Provide a copy of all permit applications submitted to Illinois EPA for the Facility since September 1, 2015. Also provide a copy of the Title V permit renewal application.
2. Provide process flow diagrams for the Facility, including all tanks/vessels utilized during production and their purpose (*e.g.*, surge control). The process flow diagrams shall show the flow of all material into and out of each emission unit and the associated air pollution control equipment, if present.
3. Provide copies of all quarterly reports, semi-annual compliance reports, deviation reports, excess emission reports, or equivalent documents submitted to Illinois EPA or EPA for the Facility since January 2016.
4. Provide copies of all notifications of initial compliance, notifications of compliance status, or equivalent documents for the Facility submitted in accordance with all applicable rules under 40 C.F.R. Parts 60 and 63.
5. Provide potential-to-emit calculations for volatile organic material (VOM), sulfur dioxide, sulfur trioxide, and individual and total hazardous air pollutants (HAPs) for each emission unit at the Facility.
6. Provide copies of all calculations of annual emissions in a Microsoft Excel compatible format for the Facility from 2016 to the present, and include:
 - a. A narrative describing the method used for the annual emissions calculations for each pollutant, including the basis of any emissions factors used;
 - b. Any documents outlining procedures for calculation of annual emissions; and
 - c. All supporting production data.
7. Provide a list of all emissions tests and wastewater sampling conducted at the Facility for any reason, from January 2010 to the present, and provide copies of all emissions test reports. Emission testing includes, but is not limited to, compliance testing, engineering testing, and testing for general information. Use the following guidelines for compiling the list and preparing copies of the stack test reports:
 - a. **List:** Identify the emissions unit, the date of the test, the federal or state regulation requiring the test (if applicable), the test method(s) used, the physical location of the sample collection points (*e.g.*, before or after

- emission unit or air pollution control device), and the production rate of the associate emission unit. For each test during which the emission unit was not operating at maximum design capacity, provide an explanation for why production was limited. Indicate whether the report was shared with Illinois EPA.
- b. **Copies:** Provide full test reports, including the summary pages, the section describing the process parameters and production or processing rates at the time of the test, all test runs, and all calculations.
8. For the Facility's leak detection and repair program, provide the following from January 2016 to the present:
- A copy of the database for the Facility, including all equipment included in the program, records of inspections and the corresponding status of each component inspected during the monitoring period in a Microsoft Excel spreadsheet or Microsoft Access format;
 - A narrative describing how fugitive VOC and HAP emissions are calculated, including the basis for any emission factors used and how monitoring data is used; and
 - All production data, supporting documents, and spreadsheets used to estimate emission factors and calculate fugitive emissions.
9. Identify and describe, in a chronologically organized table, all capital expenditures greater than \$25,000 commenced at any emission unit at the Facility, from January 2016, to the present. This list must contain the approximate date each project (including maintenance projects and modifications) commenced; the date each project was completed or implemented; a brief description of each project; a list of major expenses for each project; and the fixed capital cost of each project in nominal dollars. This list should include, but not be limited to, capital expenditures associated with changes in raw material feed rates, production rates, emission rates, and/or air pollution control equipment.
10. For each project identified in Question 9 that costs more than \$50,000, provide copies of all capital appropriation requests, financial justifications, and authorizations, including attachments and addenda, generated by or prepared on behalf of the Facility or Stepan concerning that project.
11. Provide the current "projected capital outlay plan" or any other document(s) that sets forth operational and equipment changes and identifies the projected capital expenditures that the Facility will be making in the next five years (or any longer planning period used) at the Facility. In addition, provide capital planning documents (*e.g.*, five-year plans and all other comparable documents) for the period January 2016, to the present.
12. Provide an electronic spreadsheet with the following information for each scrubber, condenser, and absorber located at the Facility from September 2015 to the present:
- The scrubber/condenser/absorber description as given in the 2019 Title V Permit;

- b. The emission unit(s) routed to the scrubber/condenser/absorber;
 - c. The operating parameter(s) monitored at the scrubber/condenser/absorber for environmental compliance;
 - d. The operating parameter range established for regulatory compliance, the method used to establish the values (reference performance test as applicable), and the effective date of these operating limits;
 - e. The monitored operating parameter data, with an identification of the date, time and duration of each deviation from the operating parameter range when the associated emission units are in operation, as well as an annual deviation total (in hours) for each calendar year for each scrubber/condenser/absorber;
 - f. The corrective action taken for each deviation from the operating parameter range;
 - g. The date and duration of all scrubber/condenser/absorber shutdowns or bypasses when the associated emission units are in operation, as well as an annual total (in hours) for each calendar year;
 - h. For Scrubber S-928, a description of how the bypass lines are monitored for usage;
 - i. Provide a narrative of how wastewater from each scrubber, condenser, and absorber is handled, treated, and/or disposed of; and
 - j. Provide a summary and records of all maintenance conducted on each scrubber, condenser and absorber from January 2016 to the present.
13. Provide the electronic spreadsheet with the following information for each catalytic and thermal oxidizer at the Facility from September 2015 to the present:
- a. The thermal/catalytic oxidizer description as given in the 2019 Title V Permit;
 - b. The emission unit(s) routed to the thermal/catalytic oxidizer;
 - c. The recorded combustion temperature as used to determine regulatory compliance, and the date, time and duration of each deviation from the minimum average combustion temperature when the associated emission units are in operation, as well as an annual deviation total (in hours) for each calendar year for each thermal and catalytic oxidizer;
 - d. The minimum average operating temperature established for regulatory compliance, the method used to establish the values (reference performance test as applicable), and the effective date of these operating limits;
 - e. The corrective action taken for each deviation from the minimum average combustion temperature;
 - f. The date of each catalyst replacement, as applicable;
 - g. The date and duration of all thermal/catalytic oxidizer shutdowns when the associated emission units are in operation, as well as an annual total (in hours); and
 - h. Provide a summary and records of all maintenance conducted on each thermal and catalytic oxidizer from January 2016 to the present.

14. Provide the following information regarding the use of ethylene oxide at the Facility from January 2016 to the present:
 - a. Monthly ethylene oxide usage;
 - b. The amount of each stack and fugitive ethylene oxide (lb/month and lb/year) emitted from each emission unit;
 - c. Underlying calculations demonstrating the amount of each stack and fugitive ethylene oxide emitted from each emission unit, including all relevant process data, and the source of any emission factors used;
 - d. A narrative describing how wastewater containing ethylene oxide or propylene oxide is handled, treated, and/or disposed of; and
 - e. A narrative describing cleaning procedures at process vessels containing ethylene oxide or propylene oxide, how often cleanings occur, and how wastewater from cleaning operations is treated and disposed of.
15. Provide the following information for Area 2 Storage Tanks, as identified in the 2019 Title V Permit, and all railcar loading and unloading operations at the Facility from January 2016 to the present:
 - a. All design and operation documents for each scrubber and absorber controlling air emissions, including design capacity and expected control efficiency;
 - b. Amount of each material stored, unloaded, and loaded on a daily basis, in Microsoft Excel or other compatible format;
 - c. The amount of each stack and fugitive sulfur dioxide, sulfur trioxide, and sulfuric acid (lb/hr and lb/year) emitted from each emission unit;
 - d. Underlying calculations demonstrating the amount of each stack and fugitive sulfur dioxide, sulfur trioxide, and sulfuric acid emitted from each emission unit, including all relevant process data, and the source of any emission factors used; and
 - e. For the absorber and demister controlling sulfur trioxide unloading, provide in Microsoft Excel or other compatible format, the parameters which are monitored to ensure proper operation of these devices, including but not limited to pressure drop.
16. Provide, in Microsoft Excel or other compatible format, the total amount of specialty product (Mode 2, tons) and regular product (tons) produced by each sulfonation unit at the Facility, for each month from January 2016 to the present.
17. Provide, in Microsoft Excel or other compatible format, the start and end date and time each sulfonation unit was fed with olefin feedstock, from January 2016 to the present. Also provide the total duration of time each sulfonation unit was fed with olefin feedstock for each year from 2016 to the present.
18. Provide the written procedures for unloading rail cars of ethylene oxide and sulfur trioxide which cover the steps from initial hookup of the railcar through unhooking the car. Identify all control devices used.

19. Provide a list of all air enforcement actions related to the Facility taken by any state or local regulatory agency, or air related citizen complaints, from January 1, 2016 to the present. Include copies of any air-related administrative or judicial complaints; any notices of violation or notices of non-compliance; any documents resolving any alleged violations, such as consent decrees or consent orders; and any orders, such as administrative orders.
20. Provide the following information for each process involving ethylene oxide at the Facility, where all terms in this request shall have their ordinary meaning unless such terms are defined under 40 C.F.R. Part 68:
 - a. Submit a copy of the Management System developed to comply with 40 C.F.R. § 68.15;
 - b. Submit a block flow diagram or simplified process flow diagram. Include labeling for each process step as required by 40 C.F.R. § 68.65(c)(1)(i);
 - c. Submit a piping and instrumentation diagram for each process;
 - d. Submit documentation of the safety systems equipment for each process in accordance with 40 C.F.R. § 68.65(d)(1)(viii);
 - e. Submit a list of the codes and standards used to design and maintain each process in accordance with 40 C.F.R. § 68.65(d)(2);
 - f. Submit the two most recent, complete Process Hazard Analyses performed in accordance with 40 C.F.R. § 68.67 for each process. Include a list of all open action items from the Process Hazard Analysis, a time frame for when the action item will be completed, and reasons for why the action item has not yet been completed;
 - g. Submit copies of the most current Operating Procedures, developed in compliance with 40 C.F.R. § 68.69, for each process;
 - h. Submit a list of all employees that currently operate systems for each process. Additionally, include current training documentation, for initial and refresher training, of the identified process in accordance with 40 C.F.R. § 68.71(c);
 - i. Submit the list of critical equipment or similar documentation for each process as developed as part of the Facility's mechanical integrity program as required under 40 C.F.R. § 68.73;
 - j. Submit the Facility's Management of Change policy in accordance with 40 C.F.R. § 68.75 for each process;
 - k. Submit the most recent change that triggered the Facility's Management of Change for each process in accordance with 40 C.F.R. § 68.75;
 - l. Submit a copy of the most recent compliance audit report conducted to comply with 40 C.F.R. § 68.79. Describe the scope of the investigation done to prepare the audit report; and
 - m. Provide the amount and duration of release of ethylene oxide for any release that has occurred at the Facility in the last 5 years. Provide the 5-year accident history records for the Facility. Provide documentation used

for any determination of offsite impacts as defined in 40 C.F.R. §§ 68.30 and 68.33.

Appendix C

Confidential Business and Personal Privacy Information

Assertion Requirements

You may assert a business confidentiality claim covering any parts of the information requested in the attached Appendix B, as provided in 40 C.F.R. § 2.203(b).

Emission data provided under Section 114 of the CAA, 42 U.S.C. § 7414, is not entitled to confidential treatment under 40 C.F.R. Part 2.

“Emission data” means, with reference to any source of emissions of any substance into the air:

Information necessary to determine the identity, amount, frequency, concentration or other characteristics (to the extent related to air quality) of any emission which has been emitted by the source (or of any pollutant resulting from any emission by the source), or any combination of the foregoing;

Information necessary to determine the identity, amount, frequency, concentration or other characteristics (to the extent related to air quality) of the emissions which, under an applicable standard or limitation, the source was authorized to emit (including to the extent necessary for such purposes, a description of the manner and rate of operation of the source); and

A general description of the location and/or nature of the source to the extent necessary to identify the source and to distinguish it from other sources (including, to the extent necessary for such purposes, a description of the device, installation, or operation constituting the source).

40 C.F.R. § 2.301(a)(2)(i)(A), (B) and (C).

To make a confidentiality claim, submit the requested information and indicate that you are making a claim of confidentiality. Any document for which you make a claim of confidentiality should be marked by attaching a cover sheet stamped or typed with a caption or other suitable form of notice to indicate the intent to claim confidentiality. The stamped or typed caption or other suitable form of notice should employ language such as “trade secret” or “proprietary” or “company confidential” and indicate a date, if any, when the information should no longer be treated as confidential. Information covered by such a claim will be disclosed by EPA only to the extent permitted and by means of the procedures set forth at Section 114(c) of the CAA and 40 C.F.R. Part 2. Allegedly confidential portions of otherwise non-confidential documents should be clearly identified. EPA will construe the failure to furnish a confidentiality claim with your response to the information request as a waiver of that claim, and the information may be made available to the public without further notice to you.

Determining Whether the Information Is Entitled to Confidential Treatment

Pursuant to 40 C.F.R. Part 2, Subpart B, EPA may send you a letter asking that you support your CBI claim. If you receive such a letter, you must respond within the number of days specified by EPA. Failure to submit your comments within that time would be regarded as a waiver of your confidentiality claim or claims, and EPA may release the information. If you receive such a letter, EPA will ask you to specify which portions of the information you consider confidential by page, paragraph and sentence. Any information not specifically identified as subject to a confidentiality claim may be disclosed to the requestor without further notice to you. For each item or class of information that you identify as being CBI, EPA will ask that you answer the following questions, giving as much detail as possible:

1. For what period of time do you request that the information be maintained as confidential, e.g., until a certain date, until the occurrence of a special event or permanently? If the occurrence of a specific event will eliminate the need for confidentiality, please specify that event.
2. Information submitted to EPA becomes stale over time. Why should the information you claim as confidential be protected for the time period specified in your answer to question number 1?
3. What measures have you taken to protect the information claimed as confidential? Have you disclosed the information to anyone other than a governmental body or someone who is bound by an agreement not to disclose the information further? If so, why should the information still be considered confidential?
4. Is the information contained in any publicly available databases, promotional publications, annual reports or articles? Is there any means by which a member of the public could obtain access to the information? Is the information of a kind that you would customarily not release to the public?
5. Has any governmental body made a determination as to confidentiality of the information? If so, please attach a copy of the determination.
6. Do you assert that the information is submitted on a voluntary or a mandatory basis? Please explain the reason for your assertion. If you assert that the information is voluntarily submitted information, explain whether and why disclosure of the information would tend to lessen the availability to EPA of similar information in the future.
7. Is there any other information you deem relevant to EPA's determination regarding your claim of business confidentiality?

If you receive a request for a substantiation letter from the EPA, you bear the burden of substantiating your confidentiality claim. Conclusory allegations will be given little or no weight in the determination. In substantiating your CBI claim(s), you must bracket all text so claimed and mark it "CBI." Information so designated will be disclosed by EPA only to the extent

allowed by and by means of the procedures set forth in 40 C.F.R. Part 2, Subpart B. If you fail to claim the information as confidential, it may be made available to the public without further notice to you.

Personal Privacy Information

Please segregate any personnel, medical and similar files from your responses and include that information on a separate sheet(s) marked as “Personal Privacy Information.” Disclosure of such information to the general public may constitute an invasion of privacy.